



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/629,717

07/30/2003

Dae-Gyu Bae

Q76376

6839

23373 7590 01/28/2009  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

DUFFIELD, JEREMY S

ART UNIT

PAPER NUMBER

2427

MAIL DATE

DELIVERY MODE

01/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/629,717	<b>Applicant(s)</b> BAE ET AL.	
	<b>Examiner</b> JEREMY DUFFIELD	<b>Art Unit</b> 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Miscellaneous***

1. Note: Examiner art unit has changed from 2623 to 2427.

### ***Response to Arguments***

2. Applicant's arguments filed 8 April 2008 have been fully considered but they are not persuasive.

In response to Applicant's arguments regarding "the predetermined data stream...or the media data", Page 16, lines 4-6, the Examiner respectfully disagrees. Claim 4 states three alternative types of information, a reference clock value, a multimedia document, or media data. Regardless, the RTSP specification teaches defining all three types of information. The reference clock value type is defined using a time Range field (Page 34; Page 52, Sec. 12.29), RTP-Info field (Page 53, Sec. 12.33), Date field (Page 49, Sec. 12.18), and/or an Expires field (Page 49, Sec. 12.19). The multimedia document scheduled for a future time, media data, and reference clock value types are all defined using the presentation description which is used for the Content-Type field (Page 7; Page 30, Sec. 10.2; Page 49, Sec. 12.16; Page 52, Sec. 12.29; Page 79, Sec. C.1.1; Page 80, Sec. C.1.2, C.1.3).

3. Applicant's arguments with respect to claims 1, 6, 16, 17, 22, 32, and 33 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 17-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 17-32 fail to fall within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claims 33-34 fail to fall within a statutory category of invention. They are directed to the signal itself. They are not a process occurring as a result of executing a program in the signal, a machine programmed to operate in accordance with a program in the signal, nor a manufacture structurally and functionally interconnected with a program in the signal in a manner which enables a program in the signal to act as a computer component and realize its functionality. They are also clearly not directed to a

Art Unit: 2427

composition of matter. Therefore, they are non-statutory under 35 USC 101. In this case, the claimed “data structure” can be construed as a signal carried on a carrier wave, e.g. Specification at Para. 64.

Claim 35 is drawn to functional descriptive material recorded on a computer-readable recording medium. Normally, the claim would be statutory. However, the specification, at Para. 64, defines the claimed computer-readable recording medium as encompassing statutory media such as a “ROM”, “CD-ROM”, etc, as well as *non-statutory* subject matter such as “carrier waves”.

A “signal” embodying functional descriptive material is neither a process nor a product (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.

Any amendment to the claim should be commensurate with its corresponding disclosure.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to

Art Unit: 2427

a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-8, 10-19, 21-24, 26-32, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piotrowski (US 2002/0188959) in view of Blackketter (US 6,415,438).

Regarding claim 1, Piotrowski teaches an apparatus for transmitting multimedia broadcasting (Fig. 1, el. 19), comprising:

a reference clock generator/transmitter, which generates and transmits a reference clock value of real-time multimedia broadcasting (Para. 25, 31-38);

a multimedia document generator/transmitter, which generates and transmits a multimedia document scheduled at the generated reference clock value, i.e. web server generates and transmits scheduled SMIL documents (Para. 19, 29-38); and

a media data generator/transmitter, which generates and transmits media data used to render the generated multimedia document, i.e. web server generates and transmits supplemental multimedia information which includes audio and video (Para. 24, 29-38).

Piotrowski does not clearly teach the reference clock value is a current time value.

Blackketter teaches a reference clock generator/transmitter, which generates and transmits a reference clock value, which is a current time value of multimedia broadcasting and using the time to schedule multimedia, i.e. the

Art Unit: 2427

current date and time can be periodically broadcasted to the receiver unit (Col. 5, lines 5-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Piotrowski to include generating and transmitting a reference clock value which is a current time value of real-time multimedia broadcasting, as taught by Blackketter, for the purpose of eliminating the need for a trigger script and delay loop by using wall-clock time with a trigger transmitted before its associated execution time (Blackketter-Col. 2, lines 39-50).

Regarding claim 2, Piotrowski (Para. 31-38) in view of Blackketter teaches the multimedia document is a synchronized multimedia integration language (SMIL) document.

Regarding claim 3, Piotrowski (Para. 31-38) in view of Blackketter (Col. 5, lines 5-40) teaches the reference clock generator/transmitter, the multimedia document generator/transmitter, and the media data generator/transmitter transmit the reference clock value, the multimedia document, and the media data, respectively, in the form of a predetermined data stream, i.e. transmitting the current date and time, the SMIL document, and the linked media.

Regarding claim 5, Piotrowski in view of Blackketter teaches the reference clock generator/transmitter transmits the reference clock value, which increases

Art Unit: 2427

by a predetermined value, whenever the reference clock value increases by the predetermined value, i.e. periodically broadcasting the current time to the receiver (Blackketter-Col. 5, lines 21-33).

Regarding claim 6, Piotrowski teaches an apparatus for receiving multimedia broadcasting (Fig. 1, el. 11, 12, 14), comprising:

a reference clock receiver, which receives a reference clock value of real-time multimedia broadcasting, i.e. receiving a time code embedded in the media (Para. 25, 31-38);

a multimedia document receiver/storage, which receives and stores a first multimedia document, Note: the multimedia document must be at least temporarily stored while it is being analyzed (Para. 19, 25, 28, 31-38, 45);

a media data receiver/storage, which receives and stores first media data, i.e. media data may be recorded (Para. 19, 25, 28, 31-38, 45); and

a multimedia document renderer, which when the first multimedia document is scheduled at the reference clock value and first media data is a rendering material used to render the first multimedia document, renders the first multimedia document using the first media data (Para. 30-38).

Piotrowski does not clearly teach the reference clock value is a current time value.

Blackketter teaches a reference clock generator/transmitter, which generates and transmits a reference clock value, which is a current time value of



Art Unit: 2427

multimedia broadcasting and using the time to schedule multimedia, i.e. the current date and time can be periodically broadcasted to the receiver unit (Col. 5, lines 5-40); and a multimedia document receiver/storage, which receives and stores a multimedia document, i.e. prefetching web pages using triggers (Col. 6, line 60-Col. 7, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Piotrowski to include generating and transmitting a reference clock value which is a current time value of real-time multimedia broadcasting, as taught by Blackketter, for the purpose of eliminating the need for a trigger script and delay loop by using wall-clock time with a trigger transmitted before its associated execution time (Blackketter-Col. 2, lines 39-50).

Regarding claim 7, Piotrowski (Para. 31-38) in view of Blackketter teaches the multimedia document is a synchronized multimedia integration language (SMIL) document.

Regarding claim 8, Piotrowski (Para. 31-38) in view of Blackketter (Col. 5, lines 5-40) teaches the reference clock receiver, the multimedia document receiver/storage, and the media data receiver/storage receive the reference clock value, the first multimedia document, and the first media data, respectively, in the form of a predetermined data stream, i.e. transmitting the current date and time, the SMIL document, and the linked media.

Regarding claim 10, Piotrowski in view of Blackketter teaches the reference clock generator/transmitter transmits the reference clock value, which increases by a predetermined value, whenever the reference clock value increases by the predetermined value, i.e. periodically broadcasting the current time to the receiver (Blackketter-Col. 5, lines 21-33).

Regarding claim 11, Piotrowski in view of Blackketter teaches a first multimedia document is not scheduled at a reference clock value, a multimedia document renderer stands by until receipt of a predetermined reference clock value at which the first multimedia document is scheduled, i.e. the SMIL document media components are scheduled and synchronized using broadcasted trigger time codes (Piotrowski-Para. 31-38; Blackketter-Col. 5, lines 5-40).

Regarding claim 12, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when the first multimedia document is scheduled at the reference clock value but the first media data is not a rendering material used to render the first multimedia

document, the multimedia document renderer holds the first media data in standby and then uses the first media data when rendering a second multimedia document, whose rendering material is the first media data and which is scheduled at a predetermined reference clock value, i.e. rendering the multimedia document and its associated media data at the scheduled time (Piotrowski-Para. 28; Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 13, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia document renderer stops rendering the first multimedia document and then renders a second multimedia document scheduled at the predetermined increasing reference clock value when the second multimedia document has been stored, i.e. the trigger for the new multimedia document is executed and the document is rendered (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 14, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia document renderer stops rendering the first multimedia document and then receives and stores a second multimedia document scheduled at the predetermined increasing reference clock value when the second multimedia document has not been stored (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 15, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is

Art Unit: 2427

finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia document renderer stops rendering the first multimedia document and then receives and stores second media data used to render a second multimedia document scheduled at the predetermined increasing reference clock value when the second multimedia document has been stored, but the second media data has not been stored, i.e. the second multimedia document has been prefetched (Piotrowski-Para. 28; Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 16, claim is analyzed with respect to the combination of claims 1 and 6.

Regarding claim 17, claim is analyzed with respect to claim 1.

Regarding claim 18, claim is analyzed with respect to claim 2.

Regarding claim 19, claim is analyzed with respect to claim 3.

Regarding claim 21, claim is analyzed with respect to claim 5.

Regarding claim 22, claim is analyzed with respect to claim 6.

Art Unit: 2427

Regarding claim 23, claim is analyzed with respect to claim 7.

Regarding claim 24, claim is analyzed with respect to claim 8.

Regarding claim 26, claim is analyzed with respect to claim 10.

Regarding claim 27, claim is analyzed with respect to claim 11.

Regarding claim 28, claim is analyzed with respect to claim 12.

Regarding claim 29, claim is analyzed with respect to claim 13.

Regarding claim 30, claim is analyzed with respect to claim 14.

Regarding claim 31, claim is analyzed with respect to claim 15.

Regarding claim 32, claim is analyzed with respect to the combination of claims 1 and 6.

Regarding claim 35, Piotrowski (Para. 42-45) in view of Blackketter teaches a computer-readable recording medium in which a program for executing the method of claim 17 in a computer is recorded.

Regarding claim 36, Piotrowski (Para. 32-37) in view of Blackketter teaches the media data generator/transmitter generates and transmits media data separately from the generated multimedia document, i.e. the multimedia document contains the URLs that link to the media data.

Regarding claim 37, Piotrowski (Para. 28, 32-37) in view of Blackketter teaches the media data receiver/storage receives and stores first media data separately from the multimedia document, i.e. the multimedia document contains the URLs that link to the media data.

8. Claims 4, 9, 20, 25, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piotrowski in view of Blackketter and further in view of the Real-Time Streaming Protocol Specification (RFC 2326).

Regarding claim 4, Piotrowski in view of Blackketter teaches all elements of claims 1 and 3.

Piotrowski in view of Blackketter teaches communication with a network using well-known conventional communication protocols (Piotrowski-Para. 22).

Piotrowski in view of Blackketter does not clearly teach the predetermined data stream is composed of type information, time slot information, payload length information, and payload information, the type information indicates whether the predetermined data stream is for the reference clock value, the

multimedia document, or the media data, the time slot information indicates a broadcasting time zone in which the reference clock value, the multimedia document, or the media data is scheduled, the payload length information indicates the length of the payload information, and the payload information is substantial data information of the reference clock value, the multimedia document, or the media data.

The RTSP Specification teaches an RTSP response can be composed of type information, (Page 7; Page 30, Sec. 10.2; Page 49, Sec. 12.16, 12.18, 12.19; Page 52, Sec. 12.29; Page 53, Sec. 12.33; Page 79, Sec. C.1.1; Page 80, Sec. C.1.2, C.1.3), time slot information, i.e. range of presentation or time of availability (Page 52, Sec. 12.29; Page 81, Sec. C.1.5, C.1.6), payload length information, i.e. content length (Page 30, Sec. 10.2; Page 49, Sec. 12.14), and payload information, i.e. entity (Page 30, Sec. 10.2; Page 26, Sec. 8), Note: for a more detailed description of the type information refer to Examiner's remarks in the Response to Arguments section.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Piotrowski in view of Blackketter to include teach the predetermined data stream is composed of type information, time slot information, payload length information, and payload information, the type information indicates whether the predetermined data stream is for the reference clock value, the multimedia document, or the media data, the time slot information indicates a broadcasting time zone in which the reference clock



Art Unit: 2427

value, the multimedia document, or the media data is scheduled, the payload length information indicates the length of the payload information, and the payload information is substantial data information of the reference clock value, the multimedia document, or the media data, as taught by the RTSP Specification, for the purpose of using a well-known and established communication protocol.

Regarding claim 9, claim is analyzed with respect to claim 4.

Regarding claim 20, claim is analyzed with respect to claim 4.

Regarding claim 25, claim is analyzed with respect to claim 4.

Regarding claim 33, claim is analyzed with respect to the combination of claims 1 and 4.

Regarding claim 34, Piotrowski in view of Blackketter in view of the Real-Time Streaming Protocol Specification teaches the type information, the time slot information, the payload length information, and the payload information are sequentially arranged. It would have been obvious to one of ordinary skill in the art at the time the invention was made because sequentially arranging the type information, the time slot information, the payload length information, and the

payload information is a predictable variation of the RTSP standard. This enables the receiver to quickly process the RTSP header fields.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY DUFFIELD whose telephone number is (571)270-1643. The examiner can normally be reached on Mon.-Thurs. 8:00 A.M.-5:30 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/629,717

Page 18

Art Unit: 2427

JSD

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427